

MLCPAC STANDARD SPECIFICATION 634
DECK COVERING RENEWAL

1 GENERAL

This specification provides material and installation requirements for the renewal of deck coverings on Coast Guard cutters and boats.

2 REFERENCES

Coast Guard Drawings: None

Enclosed Figures: None

Applicable Documents:

MLCPAC Standard Specification 074; Welding and Allied Processes (Mar 98)
COMDTINST M9000.6B; Naval Engineering Manual (Sep 93)
COMDTINST M10360.3A; Coatings and Color Manual (Aug 95)
Naval Ships' Technical Manual, Chapter 634; Deck Covering (Apr 91)
NAVSEA 0910-LP-491-8400 (Technical Manual for Epoxy Resin Deck Covering Systems)
NAVSEA 0900-LP-108-7300 (Technical Manual for Polyurethane Decking Systems)

3 REQUIREMENTS

3.1 GENERAL DECK COVERING REQUIREMENTS:

3.1.1 Materials: All deck covering material shall be new (not more than one year old), unused, and shall be from the same manufacturer. When a material conforming to a Military Specification or other Government Standard is called for in this Specification, no substitutions will be allowed without the approval of the Contracting Officer.

3.1.2 General Safety Precautions: In addition to other safety requirements specified, the requirements of NSTM Chapter 634, section 634-1.4 (General Safety Precautions), shall be adhered to.

3.1.3 Unless otherwise specified, deck covering shall cover the entire deck area of a compartment. Deck covering (except on-deck insulation covering) shall not be installed under enclosed built-in furniture nor under equipment with enclosed foundations.

3.1.4 Color schemes selected will be specified by the Coast Guard. Color schemes submitted by the Contractor will be considered, but require approval by the Coast Guard Inspector before any purchase or installation of the material is made by the Contractor. The Coast Guard will not be responsible or incur any liability for materials or work undertaken by the Contractor without such approval. In cases where new deck covering is to be installed adjacent to similar existing deck covering, a reasonable attempt shall be made by the Contractor to find a color scheme matching the existing color scheme.

3.1.5 Inspections: The Coast Guard Inspector will monitor and inspect all work Steps. Where there is a requirement, which requires the verification of the Coast Guard Inspector before proceeding to the next step, a joint inspection shall be made by the Contractor with the Coast Guard Inspector.

3.1.6 When the deck covering and the underlayment are removed, an inspection of the deck plating condition will be made by the Coast Guard Inspector.

3.1.7 Before resilient deck covering or carpets are installed, decks shall be faired with underlay material in way of laps, rivet heads, depressions in plating, weld seams, and similar conditions. Welds in excess of 1/16" high shall be ground down to not more than 1/16". Deck and underlay material shall be sanded smooth, if necessary, to prevent high points and rough spots from showing through the finished surface.

3.1.8 In shower stalls, within coamings, and in the immediate vicinity of drains, underlay material shall be used to slope the deck for drainage. Prior to the application of deck covering, any integrally cast steel sleeve of deck drains installed in interior spaces shall be coated in accordance with COMDTINST M10360.3.

3.1.9 Deck covering or underlay material shall not be installed when the temperature of the space to be covered is below 40oF, unless otherwise specified.

3.1.10 Spaces shall be closed to all traffic for as long a period of time as is required to prevent damage to the deck covering during the curing period. The Contractor shall tape-off, mask, or mark the entrance ways to areas where curing is in progress.

3.1.11 At the time of completion of work, all deck covering shall be clearly in new condition and shall be free of gouges and any other imperfections. Terrazzo and polymeric deck coverings shall be dense, smooth, and free of open pores, and shall be sealed as specified herein. Roll goods (carpets, roll-on tile) and deck tiles shall be well adhered to the deck with edges tightly butted. All work shall be verified by the Contracting Officer Representative.

3.2 RENEWAL PROCEDURES:

The Contractor shall provide all labor and material to accomplish the following:

3.2.1 Renew existing deck coverings, or designated portions thereof, in accordance with paragraphs 3.2.2 and 3.3 of this specification. The extent of work in a given compartment or compartments will be specified in an item of a Coast Guard Contract or other purchase description.

3.2.2 For the deck system specified, the Contractor shall:

3.2.2.1 Remove interferences and provide equipment protection in accordance with applicable paragraphs of the Contract General Requirements.

3.2.2.2 Remove those layers of the existing deck covering system taking care not to disturb surrounding layers or materials.

3.2.2.3 If the specified deck covering option so requires, prepare and prime metal decks in accordance with paragraph 3.3.1.

3.2.2.4 Install those new materials called for in the specified option in accordance with paragraphs 3.3.2 through 3.3.10, as applicable.

3.3 DECK COVERING MATERIAL AND INSTALLATION REQUIREMENTS:

3.3.1 DECK PREPARATION AND PRIMING:

3.3.1.1 Prepare and prime all steel decks in accordance with NSTM Chapter 634, paragraph 634-3.6.3.1, unless otherwise noted.

3.3.1.2 Surfaces to be treated shall be completely free of corrosion products, mill scale, dirt, oil, grease, moisture, deteriorated paint, and other surface contaminants. Apply coatings as soon as practicable after cleaning, but in no instance longer than 24 hours.

3.3.2 UNDERLAYMENT:

3.3.2.1 Install underlay material conforming to MIL-D-3135 in accordance with NSTM Chapter 634, sections 634-3.7 or 634-3.8, unless otherwise noted. The underlay material used must have a curing time of seven days or less, and shall be compatible with the type of deck covering being used.

3.3.3 THERMAL INSULATED UNDERLAYMENT:

3.3.3.1 Install insulation type underlay conforming to MIL-D-23134 in accordance with NSTM Chapter 634, paragraphs 634-3.8.2 through 634-3.8.5. The underlay material used must have a curing time of seven days or less.

3.3.3.2 Trowel smooth the on-deck insulation to a minimum of 1" thickness, over rough finish latex underlay conforming to MIL-D-3135, Type 1, of 1/8" minimum thickness. All aluminum fittings protruding through the deck covering shall be coated or otherwise protected from direct contact with the insulation to prevent corrosion of the aluminum.

3.3.4 DECK TILE:

3.3.4.1 Install fire retardant deck tile conforming to ASTM F-1066 in accordance with NSTM Chapter 634, paragraphs 634-3.6 through 634-3.6.3.3.

3.3.4.2 Secure tile with cement conforming to MIL-A-21016.

3.3.5 ELECTRICAL INSULATING MATTING:

3.3.5.1 Matting shall conform to, and be installed in accordance with, NSTM Chapter 634, section 634-3.12, except as noted in COMDTINST M9000.6, paragraph 634.B. Where requirements conflict between the two references for the same item, COMDTINST M9000.6 shall take precedence over NSTM Chapter 634.

3.3.6 CARPETS:

3.3.6.1 Carpets shall conform to, and be installed in accordance with NSTM Chapter 634, paragraphs 634-3.18 through 634-3.18.3, except as noted in COMDTINST M9000.6, paragraph 634.C. Where requirements conflict between the two references for the same item, COMDTINST M9000.6 shall take precedence over NSTM Chapter 634.

3.3.7 TERRAZZO:

3.3.7.1 Existing terrazzo (formerly Mil-D-3134, Type 1, Class 1) deck covering systems shall not be renewed. They may be repaired and /or resealed in accordance with manufacturer's instructions and NSTM, Chapter 634, paragraphs 634-3.10.2.7 and 634-3.10.2.8. Apply at least two coats of sealer conforming to MIL-S-24522 to the finish deck, with a minimum drying time of two hours between seal coats.

3.3.7.2 Replace existing terrazzo deck covering systems as necessary with an authorized deck covering system in accordance with COMDTINST M9000.6 and NSTM Chapter 634.

3.3.8 QUARRY TILE:

3.3.8.1 Remove drain screens and plug all drains.

3.3.8.2 Remove existing deck coverings and underlayment.

3.3.8.3 The renewal of decks includes preservation of the drain wells installed in the designated compartments by using a needle- gun, wire brush, or other suitable means to achieve a clean and bright metal surface. Paint drain wells with two coats (3 mils dry film thickness each) of epoxy primer, Formula 150, MIL-P-24441.

3.3.8.4 Prepare decks in accordance with paragraphs 634-3.1 through 634-3.1.3.6 of NSTM Chapter 634, except as noted. The prepared decks shall be verified by the Coast Guard Inspector before beginning the installation.

3.3.8.5 Upon verification of the deck preparation by the Coast Guard Inspector, install quarry tile in the designated compartments. Particular attention shall be given to the proper surface and material preparations and the required drying times specified for each step in accordance with NSTM Chapter 634, section

634-3.1.3. Slope the decking for drainage. Tile shall be 6" x 6" x 1/2", with a 7% to 11% nonskid grit. Use 3" cove tile.

3.3.9 POLYMERIC DECK COVERING SYSTEM:

3.3.9.1 Install flexible cosmetic polymeric deck covering system conforming to MIL-D-24613, Type I (Epoxy). Install in accordance with manufacturer's instructions, NAVSEA 0910-LP-491-8400, and NSTM Chapter 634, paragraphs 634-3.10.4 through 634-3.10.4.2.

3.3.9.2 Existing polyurethane (MIL-D-24613, Type II) deck covering systems shall not be renewed. They may be repaired and/or resealed in accordance with manufacturer's instructions, NAVSEA 0900-LP-108-7300, and NSTM Chapter 634, paragraph 634-3.10.4.4.

NOTE: Use caution and appropriate protective measures when working with polyurethane deck covering systems. Materials and sealers may contain isocyanates. See NSTM Chapter 634, paragraph 634-1.4.3 for safety precautions.

3.3.10 COVE BASE MOLDING:

3.3.10.1 Install cove base molding where the exposed deck covering edge butts up against a fitting or bulkhead. Molding shall be a beveled stainless steel or brass strip which is screwed or cemented (with epoxy or polysulfide adhesive) to the deck, or a vinyl beveled-edging strip cemented to the deck or abutment with rubber latex cement. All cove base molding shall be compatible with the deck covering system used.